APPENDIX (IV)

CONTENTS

1. Test Mode <GR>
1. Operation Procedures ..... APX (IV)-1
2. Test Items and Operations ..... APX (IV)-3

2. Memory Switch <GR> ..... APX (IV)-9
3. Users Mode <GR> ..... APX (IV)-11
4. Master Making Width Adjustment <GR> ..... APX (IV)-14
5. Advice Displays <GR> ..... APX (IV)-15

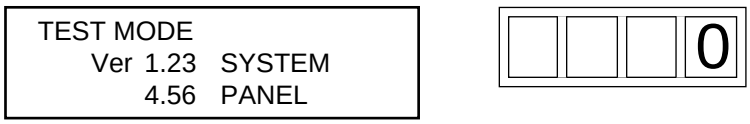
1. Test Mode <GR>

1. Operational Procedures

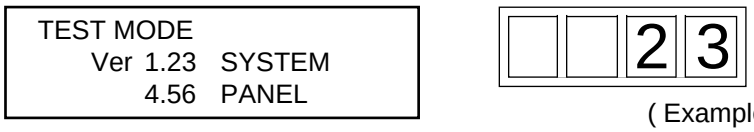
The Test mode program enables a service technician to check the operation of each electrical component in the machine.

1. [Starting Up Test mode]
Turn on the power, pressing down both the **"LINE/PHOTO"** and **"M/P"** buttons on the main panel. If the Test mode is activated, the following indication will be displayed in the print quantity display.

- This is a sample of the initial condition of Test mode:



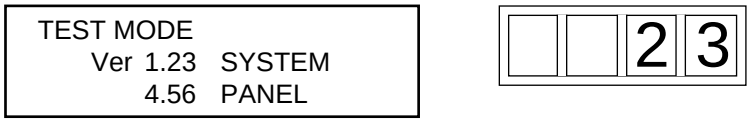
2. [Checking the Operation of a Component]
To check the operation of a component, select a test No. using panel keys.



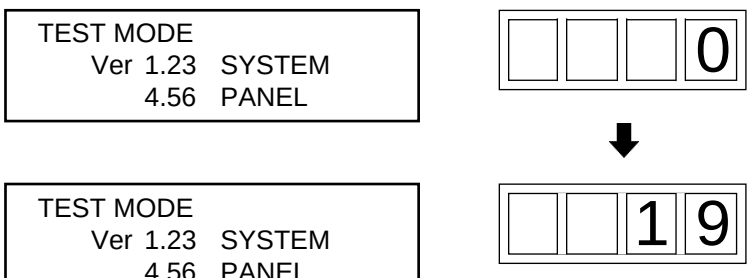
(Example: No. **23**)

To activate the selected test, press the **"START"** button.

To stop the test, press the **"START"** button again.



3. [Selecting Another Test mode]
To select another Test mode, clear the set Test No. by pressing the **"C"** or **"STOP"** button and select another Test No..

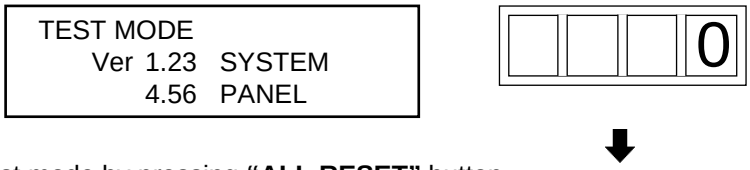


(Example: No. **19**)

4. [Exiting from the Test mode]

To exit from a Test mode, clear the set Test No. by pressing the **"C"** or **"STOP"** button and then press the **"ALL RESET"** button.

Clear the set Test No. by pressing **"C"** or **"STOP"** button.



Exit from the Test mode by pressing **"ALL RESET"** button.

[Note]

As for the operation procedures of the Test mode in GR2710, GR1750 and GR1700, refer to the pages APX (I)-1 and APX (I)-2.

2. Test Items and Operations

1) Sensor/SW Test

A beep sounds in two ways to tell the current condition.

Detection: 0.1 second interval beep
No detection: 0.5 second interval beep

No	Test Component	Detection Status	3750	2750	2710	1750	1700
1							
2	Paper size sensor	Reflected light is detected.	○	○	○	○	×
3	Elevator lower limit sensor	Light path is blocked.	○	○	○	○	○
4	Paper feed pressure switch	The switch is released.	○	○	○	○	○
5	Master loading button	The button is pressed.	○	○	○	○	○
6	Paper sensor	Light path is blocked.	○	○	○	○	○
7	Pressure detection sensor	Light path is blocked.	○	○	○	○	○
8	Position A sensor	Light path is blocked.	○	○	○	○	○
9	0° Angular sensor	Magnetism is detected.	○	○	○	○	○
10	180° Angular sensor	Magnetism is detected.	○	○	○	○	○
11	Position C sensor	Light path is blocked.	○	○	○	○	○
12	Feed-tray down button	The button is pressed.	○	○	○	○	○
13	Clamp safety switch	The switch is pressed.	○	○	○	○	○
14	Master removal hook sensor	Light path is blocked.	○	○	○	○	○
15	Master positioning sensor	Reflected light is detected.	○	○	○	○	○
16	Drum home position button	The button is pressed.	○	○	○	○	○
17							
18	Drum set switch	The switch is pressed.	○	○	○	○	○
19	Paper receiving sensor 1	Light path is blocked.	○	○	○	○	○
20	Paper receiving sensor 2	Light path is blocked.	○	○	○	○	○
21	Scanner table (Upper cover) set switch	The switch is pressed.	○	○	○	○	○
22	Vertical centering sensor	Light path is blocked.	○	○	○	○	○
23	Master end sensor	No reflected light.	○	○	○	○	○
24	Paper feed clutch sensor	Light path is blocked.	○	○	○	○	○
25	Paper feed det. sensor	Light path is blocked.	○	○	○	○	○
26	Jump wing switch 1	The switch is pressed.	○	○	○	○	×
27	Jump wing switch 2	The switch is pressed.	○	○	○	○	○
28	Master removal sensor	Light path is blocked.	○	○	○	○	○
29	Master loading unit switch	The switch is pressed.	○	○	○	○	○
30	Front cover set sensor	Metal plate is attached.	○	○	○	○	○

NOTE: The status of the Elevator upper limit sensor can be checked by LED on the Motor control PCB.
The LED lights up when the light path of the sensor is NOT blocked.

1) Sensor/SW Test

A beep sounds in two ways to tell the current condition.

Detection: 0.1 second interval beep
No detection: 0.5 second interval beep

No	Test Component	Detection Status	3750	2750	2710	1750	1700
31	TPH home position switch	The switch is pressed.	○	○	○	○	○
32	TPH pressure switch	The switch is pressed.	○	○	○	○	○
33	Disposal box set switch	The switch is pressed.	○	○	○	○	○
34	ADF original detection sensor	Light path is opened.	△	△	△	○	○
35	Original registration sensor	Light path is opened.	△	△	△	○	○
36	Original IN sensor	Light path is blocked.	△	△	△	○	○
37	Ink sensor	Ink is detected.	○	○	○	○	○
38	Overflow sensor	Ink is detected.	○	○	○	○	○
39	Main motor interlock switch	The switch is pressed.	○	○	○	○	○
40	Paper feed safety switch	The switch is released.	○	○	○	○	○
41	Paper feed cassette SW1	Magnetism is detected.	○	○	○	○	○
42	Paper feed cassette SW2	Magnetism is detected.	○	○	○	○	○
43	Paper feed cassette SW3	Magnetism is detected.	○	○	○	○	○
44	Paper feed cassette SW4	Magnetism is detected.	○	○	○	○	○
45	Original OUT sensor	Light path is blocked.	△	△	△	○	○
46	ADF switch	The switch is pressed.	△	△	△	○	○
47	Master detection sensor	Reflected light detected.	○	○	○	○	○
48	Master loading sensor	Reflected light detected.	○	○	○	○	○
49	Scanner home position sensor	Light path is blocked.	○	○	○	×	×
50	Scanner ADF shading sensor	Light path is blocked.	○	○	○	×	×
51	Stage cover sensor	Light path is blocked.	○	○	○	×	×
52	Flat bed original det. sensor	Reflected light detected.	○	○	○	×	×
53	Pressure control sensor	Light path is blocked.	○	○	○	○	○
54	Disposal box master sensor	Light path is blocked.	○	○	○	○	○
55	Bottle set SW1	The switch is pressed.	○	○	○	○	○
56	Bottle set SW2	The switch is pressed.	○	○	○	○	○
57	Bottle set SW3	The switch is pressed.	○	○	○	○	○
58	Battery detection signal	Battery is attached.	○	○	○	○	○
59	Option PCB detection signal	Option PCB is attached.	○	○	○	○	○

2) Motor/Solenoid Test

No.	Test Item	No.	Test Item
60	15 rpm Drum rotation	71	Master removal solenoid & Vertical transport motor
61	30 rpm Drum rotation	72	Loading fan
62	Variable speed Drum rotation	73	Clamp solenoid
63		74	Lock solenoid
64	Separation Fan	75	
65	Write pulse motor CW (Feed)	76	Pickup solenoid
66	Loading pulse motor	77	Thermal power control
67	Paper feed clutch	78	Pickup motor
68	Pressure solenoid	79	LED array in Image scanner ON
69	Suction motor (fan)	80	Wing motor (Except for GR1700)
70	Master removal fan		

* Refer to the page on the "Memory Switch" for the Test modes **No.81** through **88**.

3) Memory Clear and Counter Stop, etc.

No.	Test Item
90	**Partial Memory Clear** Certain portion of RAM contents in the System PCB, such as Jam and Trouble messages, will be initialized. (The same operation as when turning the power ON while pressing All Reset button.)
91	**Master Making Width Check** (Except for GR1700)
92	**Prevention of the following operations: master and copy counting, Key/card counter and "T17 CALL SERVICE" or [E17] error signal display (for dead battery)** • In normal operation, the Master count and Copy count signals will not be output, allowing a service technician to print without increasing the digit of the Master and Copy counters. • The machine will be released from this condition when the power is turned off.
97	**All Memory Clear** All RAM contents in the System PCBs, excluding Memory switch settings by Test modes, that is No.81 through 87, will be initialized. Master disposal count is not cleared. **NOTE: This test mode must be done each time System ROM, System PCB, or Battery is changed.**
98	**Memory Switch Clear** Memory switch settings by Test modes No.81 through 87 will be initialized. **This test mode must be done each time System PCB is changed.** **[CAUTION]** **Do not use this test mode in normal operation.** **All the programmed Memory switch settings in the machine will be initialized.**

4) Sequential Operation Test

No.	Test Item
101	**Ink motor operation** While the Drum rotates at the speed of 15 rpm, the Inking motor operates to supply the ink into the Squeegee until the Ink sensor detects ink. Then a blank master is loaded on the Drum and the Auto idling operates for 30 Drum rotations and then stops at the "A" detection (Home) position. • This test mode is used when filling an Inkless Drum with ink.
102	**Elevator motor Up/Down operation** The following operations will be repeated while pressing down the Feed-tray down button. • PRESS ➡ Elevator UP ➡ Upper limit sensor "ON" ➡ Elevator Stop • PRESS ➡ Elevator Down ➡ Lower limit sensor "ON" ➡ Elevator Stop
103	**Print positioning motor CW/CCW rotation (one-cycle check)** Return to vertical center position ➡ One second halt ➡ CW (+) direction rotation ➡ One second halt ➡ CCW (-) direction rotation ➡ One second halt ➡ Return to vertical center position ➡ Stop.
104	**Clamp plate Open/Close operation** (Press START button again to stop) Rotate Drum to Home position ➡ Open Clamp plate (180°) ➡ One second halt ➡ Close Clamp plate (0°) ➡ Rotate Drum to home position (Then go back to the first step).
105	**ADF Original feed operation** (Press START button again to stop) *(Except for GR3750/2750/2710)* Pick-up one original ➡ Shading operation ➡ Feed original ➡ Eject original ➡ Original detection sensor ON ➡ Pick-up one original (Repeats this cycle until START button is pressed.)
106	**Confidential operation (Repeated by three cycles)** Confidential operation ➡ Pressure solenoid ON (one time Drum rotation) ➡ Pressure solenoid OFF (five times Drum rotation). (This is repeated three times and the machine stops.)
107	**Paper feed & Printing operation** (Press START button again to stop) The paper feed tray raises and the paper is continuously fed until paper supply runs out. Note: • The Copy counter does not operate and paper jam is not detected. • Paper feed tray will be automatically lowered without paper. • Ink can be supplied by the Inking motor. • Printing speed key can be operated.

4) Sequential Operation Test

No.	Test Item
108	**Flat bed read pulse motor (scanner) movement** (Press START button again to stop) *(Except for GR1750/1700)* Image scanner home position sensor (2 sec. halt) ➡ Image scanner shading sensor (2 sec. halt) ➡ FB-ADF scanning position (2 sec. halt) ➡ Image scanner home position sensor (2 sec. halt) • • • ➡ (This is repeated until START button is pressed.)
109	**Machine aging operation** 130 rpm Drum rotation ➡ 3000 times Magnet A detection ➡ Stop.
110	**Elevator aging operation** UP ➡ Upper limit sensor ON ➡ Stop ➡ DOWN ➡ Lower limit sensor ON ➡ Stop ➡ UP (This cycle is repeated for 5000 times) ➡ Stop.
111	**Thermal pressure motor** If the TPH home position switch is pressed: • TPH is lowered ➡ TPH pressure switch is pressed ➡ Stop. If the TPH pressure switch is pressed: • TPH is raised ➡ TPH home position switch is pressed ➡ Stop.
112	**Cutter motor ON [One-cut operation]**
113	**FB-ADF Original feed operation** (Press START button again to stop) *(Except for GR1750/1700)* Pick-up one original ➡ Feed original ➡ Eject original ➡ Original detection sensor ON ➡ Pick-up one original (Repeats this cycle until START button is pressed.)
114	**Pressure control motor** Center position ➡ One second halt ➡ Rotates to pressure setting No.12 ➡ Rotates to pressure setting No.1 ➡ Returns to center position (This cycle is repeated three times) ➡ Stop.
115	**Ink Thermistor check** Ink thermistor is defective if "00" or "FF" is shown on the display. All other numbers indicate the thermistor is in good condition. * Displayed number is not the temperature.

4) Sequential Operation Test

No.	Test Item
116	**TPH Thermistor check** TPH thermistor is defective if "00" or "FF" is shown on the display. All other numbers indicate the thermistor is in good condition. * Displayed number is not temperature.
117	**Thermal print head check operation 1** Makes a master of test pattern #1 memorized in the Image processing PCB.
118	**Thermal print head check operation 2** Makes a master of test pattern #2 memorized in the Image processing PCB.
119	**Thermal print head check operation 3** *(Except for GR1750/1700)* Makes a master of test pattern #3 memorized in the Image processing PCB.
120	**Thermal print head check operation 4** *(Except for GR1750/1700)* Makes a master of test pattern #4 memorized in the Image processing PCB.
131	**Suction clutch check** The Drum rotates at the speed of 15 rpm. The clutch is activated ON and OFF by the * key on the Operation panel.

2. Memory Switch <GR>

1. Items

The Memory switch settings can be reprogrammed to make fine adjustments in Image scanning and Master making. The Memory switch mode is started up by the same method as with Test mode.
Refer to the following pages for a brief operation procedure.
These Memory switch settings are not reset by Test Mode No.90 or 97.

Caution:

Do not use Test mode No.98 in normal operation.

Test mode No.98 resets all the Memory switch settings to the original "0" setting.

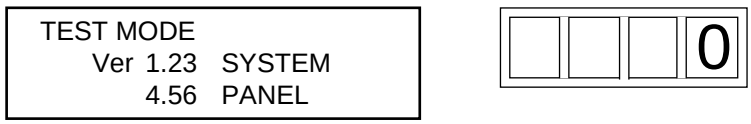
Memory Switch No.	3750	2750		1750	1700
Memory Switch No.81 (Test mode No.81) • • • • • Refer to page VI-37 [Image Scanner ADF Home Position Adjustment] Adjusts the position of the Image scanner against the White roller (Read roller) to sharpen the blurred image caused by incorrect positioning of the Image scanner.	△	△		×	×
Memory Switch No.82 (Test mode No.82) • • • • • Refer to page VI-32 [Scanning Start Position Adjsutment] When scanning on the Stage glass with the Book processing mode selected.	○	○		×	×
Memory Switch No.83 (Test mode No.83) • • • • • Refer to page V-23 Refer to page VI-36 [Horizontal Scanning Position Adjustment] When using ADF Unit for scanning.	△	△		○	○
Memory Switch No.84 (Test mode No.84) • • • • • Refer to page VI-36 [Horizontal Scanning Position Adjustment] When scanning on the Stage glass.	○	○		×	×
Memory Switch No.85 (Test mode No.85) • • • • • Refer to page VII-17 [Master Making length (Write Pulse Motor Operation Time) Adjustment] Adjusts the master making length by controlling the operation time of the Write pulse motor.	○	○		○	○
Memory Switch No.86 (Test mode No.86) • • • • • Refer to page V-21 Refer to page VI-33 [Scanning Start Position Adjustment] When using ADF Unit for scanning.	△	△		○	○
Memory Switch No.87 (Test mode No.87) • • • • • Refer to page VI-32 [Scanning Start Position Adjustment] When scanning on the Stage glass without selecting the Book processing mode.	○	○		×	×
Memory Switch No.88 (Test mode No.88) • • • Refer to page VII-19-GR31 [TPH Thermal Power Adjustment] When the reduction of the thermal power is required.	○	○		○	○
Memory Switch No.89 (Test mode No.89) • • • Refer to page III-18-GR19 [Separation Fan Air Power Adjustment] When the air power adjustment of the fan is required.	○	○		○	○

2. Operational Procedures

1. [Starting Up Memory Switch]

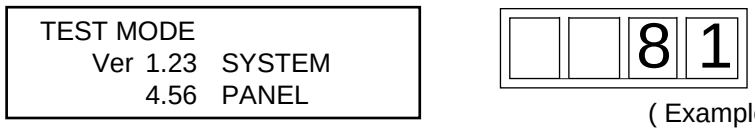
Turn on the power, pressing down both the **"LINE/PHOTO"** and **"M/P"** buttons on the main panel. If the Test mode is activated, the following indication will be displayed in the print quantity display.

- This is a sample of the initial condition of Memory Switch:



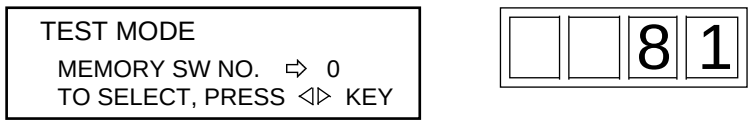
2. [Selecting the Memory Switch]

Select a Memory Switch No. using panel keys.



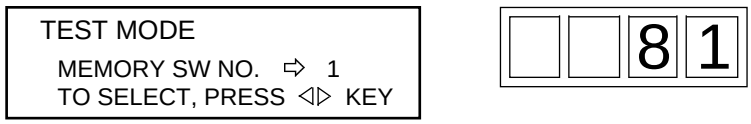
(Example: No. **81**)

To activate the selected Memory SW, press the **"START"** button.



To change the Memory switch setting, press the ◁ or ▷ key of the PRINT POSITION BUTTON to move the number up or down.
The setting can be selected from 16 choices, i.e. 0,1,2,3,4,5,6,7,8,9,A,B,C,D,E or F.

The ▷ key moves the number up.



The ◁ key moves the number down.

To set the machine at the selected switch setting, press the **"START"** button and then **"C"** or **"STOP"** button and then **"ALL RESET"** button to exit from the Memory Switch adjustment. The machine then returns to the normal working condition.

[Note]

As for the operation procedures of the Memory switch in GR2710, GR1750 and GR1700, refer to the pages APX (I)-1 and APX (I)-2.

3. Users Mode <GR>

1. Initial Operation Settings

The users mode program enables a machine operator to select the initial operation settings of the machine.
This mode is explained in "User Guide" and is intended for customers to make a selection if required.

[INITIAL SETTINGS OPEN TO CHANGES] — The initial settings (at factory shipment) are in boldface in the chart below.

Item No.	Item Title	Description	Choices	3750	2750		1750	1700
01	Print Speed	Selects the initial print speed (copies per minute).	60/80/**100**/110/120	○	×		×	×
			60/80/**100**/120/130	×	○		○	○
02	Auto Print Feature	Selects the initial status of the Auto print feature.	**OFF** / ON	○	○		○	○
03	Jump Wing Setting	Activates/Deactivates the Jump wings at paper exit.	**AUTO** / OFF	○	○		○	×
04	Displayed Print Quantity	Selects the initial number appearing in the Print quantity display.	**0000** / 0001	○	○		○	○
05	Master Making Area Limit	Selects the maximum image area for a master sheet.	**VARIABLE** / A3 / B4 / A4	○	○		○	×
06	Auto Reset Time	Gives/Ignores the period for automatic initialization.	**NONE** / 5 Minutes	○	○		○	○
07	Minimum Print Quantity	Selects the minimum print quantity which should be produced from one master.	**1** / 10 / 20 / 30	○	○		○	○
08	Auto Idle Period	Selects the period required for automatic activation of the Auto idle feature.	**12 HRS** / 6HRS / OFF (No limit)	○	○		○	○
09	Auto Document Feed	Requires the Start key or Not, to feed the following original placed in the ADF unit without the Auto print feature activated.	**OFF** **(Start key required)** ON (Start key not required)	○	○		○	○
11	Two-Up Time Interval	Gives/Ignores the interval required for replacing the original on the Stage glass for Two-up printing.	**NONE (No interval)** / 15 SEC.	○	○		×	×
12	Two-Up Formation	Selects the size of the original available for Two-up printing in ADF.	**B5 x 2** / A5 x 2	×	×		○	○
13	Job Separator Connection	Open/Closes the data line for the Job separator. Select "YES" when attaching the Job separator.	**NO (Close data line)** / YES (Open data line)	○	○		○	○
17	Displayed Language	Selects a displayed language.	**English** and other 8 languages (The detail will be given later by bulletins.)	○	○		×	×

Refer to the following pages for the procedures of changing the initial operation settings.

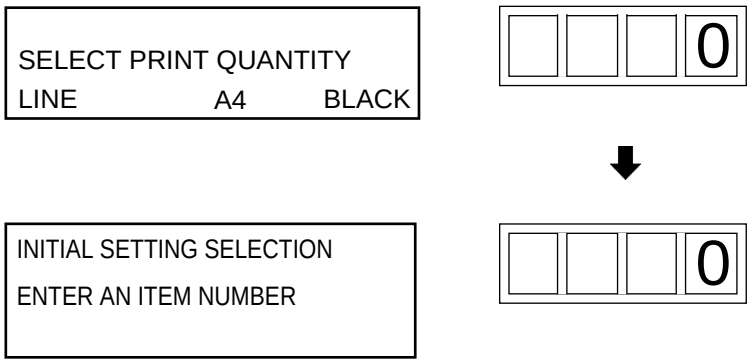
[Note]

As for the operation procedures in GR2710, GR1750 and GR1700, refer to the pages APX (I)-10.

2. Operational Procedure

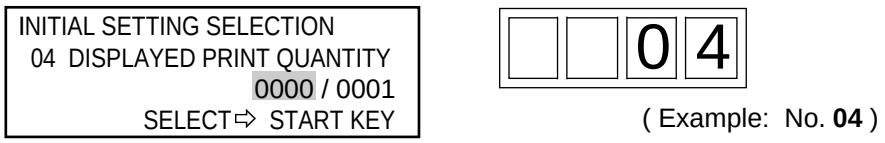
1. [Starting Up Users Mode]

Turn ON the power.
Press **8** key of the print quantity keys while pressing down the ✱ key.
This makes access to the User mode.



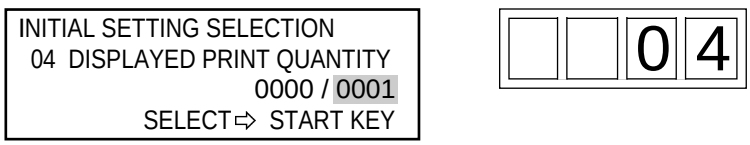
2. [Making Selections]

After the access is made, select the item(s) whose initial setting is required to be changed.
Use the print quantity keys to select the desired item number.
For example, choose the item **04**.

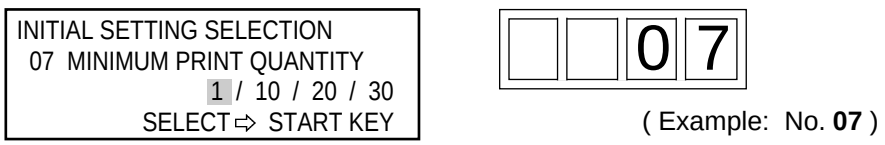


(Example: No. **04**)

Press "START" key to select the desired print quantity which is displayed at power-on.
The shaded area is where the selection is made.

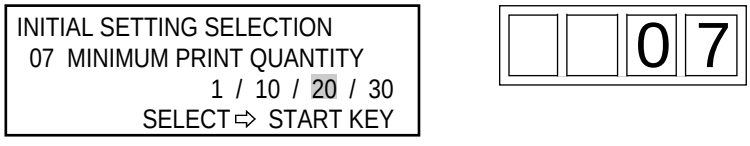


If another change needs to be made, continue the selection by pressing the print quantity key.
The display will automatically change to the next selected display.
For example, press **07**.

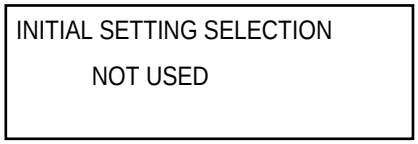


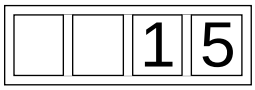
(Example: No. **07**)

Press "START" key to select the desired print quantity.
The shaded area is where the selection is made.



If a nonexisting item number is selected, the following message will be displayed as shown below.
In this case, reselect an existing item number.

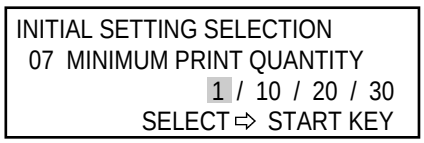


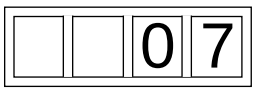


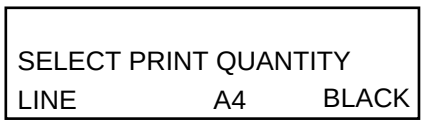
(Example: No. **15**)

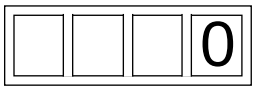
Repeat the procedure until all required changes are made.

To exit from this mode, press the "ALL RESET" key for 1 second.
All new initial settings are memorized and the dispaly returns to the normal condition.





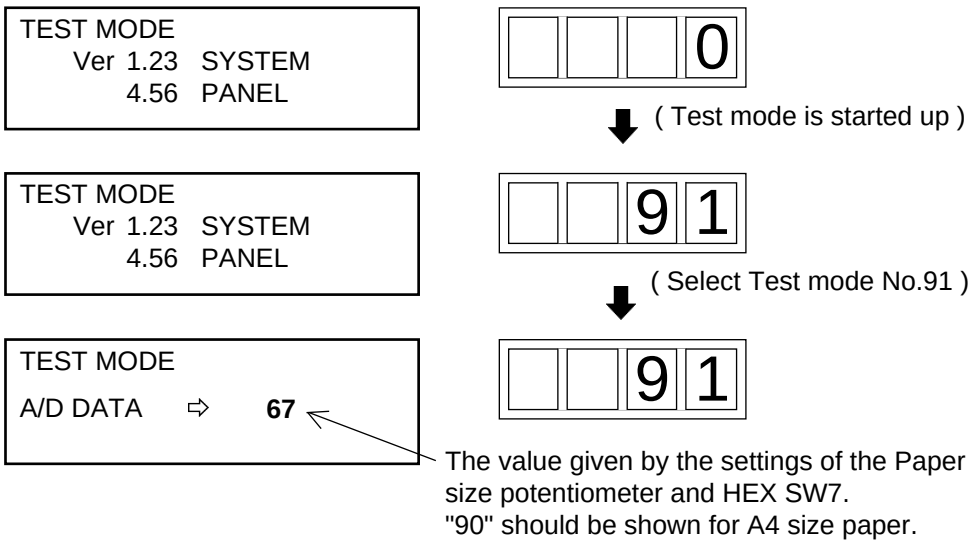




4. Master Making Width Adjustment <GR>

1. To check whether the Paper size potentiomenter is adjusted to the correct setting, place A4 size or B4 size paper on the Paper feed tray and slide the Paper guides against it.
2. Start up Test mode No.91 and press **"START"** key.
   A certain number, which is the value given by the settings of the Paper size potentiometer and HEX SW7 on the Image processing PCB, will appear aside "A/D DATA" in the Main LCD display for GR3750 and GR2750 or in the print quantity display for GR2750 and GR1750.

   "**90"** should be shown in the display with A4 size paper and "**63**" with B4 size one..



3. If a different number is shown, turn the HEX SW7 until "**90"** appears in the display.

4. To exit from Test mode No.91, press "START" key.
   The display on the Panel returns to the initial condition.

- Note -

- The actual width of master making will be 2mm narrower on each side, compared to the original.
- Turning SW7 to a larger number will increase the Master making width.
  Turning it to a smaller number will decrease the width.
- One notch of SW7 will change the Master making width by 1mm.

Paper size	Correct value
A3 (297mm)	3C
B4 (257mm)	63
A4 (210mm)	90
B5 (181mm)	Ad
A5 (148mm)	Cd

5. Advice Displays <GR>

1. "CALL SERVICE" indication

T1
CALL SERVICE

E 01

- Main Motor Lock -

Displayed to interrupt the machine operation:

1) If the Drum position A is still detected by the Position A detection sensor **2 seconds** after the Main motor started.
2) If the Drum position A hasn't been detected by the Position A detection sensor within **5 seconds** after the Main motor is started.

T2
CALL SERVICE

E 02

- Elevator Motor Lock -

Displayed to interrupt the machine operation:

1) If the actuator of the Elevator upper limit sensor is not raised within **9 seconds** after the Elevator motor started to raise the Paper feed tray.
2) If the light path of the Elevator lower limit sensor is not blocked within **9 seconds** after the Elevator motor started to lower the Paper feed tray.
3) If the light path of the Elevator lower limit sensor is blocked **2 seconds** after the Elevator motor started to raise the Paper feed tray.
4) If the actuator of the Elevator upper limit sensor is still raised **2 seconds** after the Elevator motor started to lower the Paper feed tray.

T3
CALL SERVICE

E 03

- Clamp Error 1 -

Displayed to interrupt the machine operation:

1) If the actuator of the Clamp safety switch is still depressed **4 seconds** after the Clamp solenoid was activated (turned on).
2) If the actuator of the Clamp safety switch has not been depressed within **4 sec.** after the Clamp solenoid was released (turned off).
3) If the Angular magnet has not been detected by the Angular sensor (either 0° or 180°) within **8 seconds** after the Clamp motor started rotating.
4) If the actuator of the Clamp safety switch is not depressed when the Clamp solenoid is not in operation.

T4
CALL SERVICE

E 04

- Ink Overflow -

Displayed to interrupt the machine operation:

1) If the Overflow sensor detects excessive ink in the Squeegee unit.

T5
CALL SERVICE

E 05

- Print Positioning Motor Lock -

Displayed to interrupt the machine operation:

1) If the Vertical centering sensor status has not been changed from ON to OFF (or OFF to ON) within **12 seconds** after the Print positioning motor started rotating.

T6
CALL SERVICE

E 06

- Pressure Detection Sensor Malfunction -

Displayed to interrupt the machine operation:

1) If the Pressure detection sensor status has not been changed from ON to OFF (or OFF to ON) within **8 seconds** after the Main motor started rotating.

T7
TURN MAIN POWER
SW. OFF THEN ON

< Only in GR3750/2750 >

- Communication error between GR and Digitizer -

Displayed to interrupt the machine operation:

1) If a communication error has occurred between the CPU and the digitizer.

T8
TURN MAIN POWER
SW. OFF THEN ON

E 08

- Communication error between GR and Interface Accessories -

Displayed to interrupt the machine operation:

1) If a communication error has occurred between the CPU and the interface accessories.

T9
TURN MAIN POWER
SW. OFF THEN ON

E 09

- Communication error between GR and the Sorters -

Displayed to interrupt the machine operation:

1) If a communication error has occurred between the CPU and the sorters.

T10
TURN MAIN POWER
SW. OFF THEN ON

< Only in GR3750/2750 >

- Malfunction of Trimming PCB or Image Processing PCB -

Displayed to interrupt the machine operation:

1) If data signals such as original size, are not output from the **Trimming PCB** at the start of the image scanning operation.
2) If Auto base cntrol signal is not output from the **Image processing PCB**.

T11
CALL SERVICE

E 11

- Pressure Control Motor Lock -

Displayed to interrupt the machine operation:

1) If the pulse from the Encoder disc on the Pressure control motor has not been detected within **100ms** from the start of the Pressure control motor.
2) If the Pressure centering sensor status has not been changed from ON to OFF (or OFF to ON) within **5 seconds** from the start of the Pressure control motor.

T13
CALL SERVICE

E 13

- Cutter Motor Lock -

Displayed to interrupt the machine operation in master-making and confidential process:

1) If master is detected by the Master positioning sensor at Drum A position after the cutting operation and if it is still detected by the Master positioning sensor at the next Drum A position detection after the second cutting operation.

T14
CALL SERVICE

E 14

- Clamp Error 2 -

Displayed to interrupt the machine operation:

1) If the actuator of the Clamp safety switch is not depressed when the Clamp solenoid is not in operation.

T15
CALL SERVICE

E 15

< Only in GR3750/2750/2710 >

- Flat Bed Read Pulse Motor Lock -

Displayed to interrupt the machine operation:

1) If the Image scanner home position sensor does not detect the Image scanner within **18898 pulses** after the Flat bed read pulse motor is activated.
2) If the Image scanner ADF Shading sensor does not detect the Image scanner within **15748 pulses** after the Flat bed read pulse motor is activated.
3) If the Image scanner is not release from the Image scanner home position sensor within **314 pulses** after the Flat bed read pulse motor is activated.
4) If the Image scanner is not released from the Image scanner ADF Shading sensor within **314 pulses** after the Flat bed read pulse motor is activated.

T16
CALL SERVICE

E 16

- Position C Sensor Malfunction -

Displayed to interrupt the machine operation:

1) If the Position C sensor status has not been changed from ON to OFF (or OFF to ON) within **8 seconds** from the start of the Main Motor.

T17
CALL SERVICE
REPLACE BATTERY

E 17

- Replace Battery -

Displayed to interrupt the machine operation:

1) If the Battery detection signal is OFF in one of the following three cases:
<1> when the machine power is turned ON <2> when All reset button is pressed <3> at the end of machine operation.

T18
TURN MAIN POWER
SW. OFF THEN ON

E 18

- Sorter Error -

Displayed to interrupt the machine operation:

1) If an error signal is received from the sorter.

T19
CALL SERVICE

E 19

- Thermal Pressure Motor Lock -

Displayed to interrupt the machine operation:

1) If the TPH Pressure switch has not been depressed within **4 seconds** after the TPH Pressure motor was activated to lower the TPH.
2) If the TPH Pressure switch has not been released within **4 seconds** after the TPH Pressure motor was activated to raise the TPH.

T20
CALL SERVICE

E 20

< Except for GR1700>

- Wing Motor Lock -

Displayed to interrupt the machine operation:

1) If neither of the Jump wing sw1 or sw2 has been depressed within **5 seconds** after the Wing motor was activated.
2) If neither of the Jump wing sw1 or sw2 has been released within **5 seconds** after the Wing motor was activated.

Note: The "C" messages in parentheses, e.g. (C 21), are displayed only when the * key is pressed on the Operation panel.

CLAMP ERROR
REMOVE MASTER
ROLL THEN RE-
INSTALL

(C 21)

- Master Loading Error (onto the Drum) -

Displayed to interrupt the machine operation:

1) If the Master load sensor does not detect master at the Drum C-1 position during loading of the master on the Drum.

MASTER MIS-FEED
REMOVE MASTER
ROLL THEN RE-
INSTALL

(C 22)

- Master Mis-Feed -

Displayed after the master has been loaded onto the Drum in the master making or confidential process:

1) If the Master positioning sensor has not detected master material within **787 pulses** (**536 pulses** in confidential process) after the Loading pulse motor started following the master cutting operation.

Displayed to interrupt the machine operation when the Master loading button was pressed:

1) If the Master positioning sensor has not detected master material within **1260 pulses** after the Loading pulse motor was turned on.
2) If the Master positioning sensor has not detected master material within **787 pulses** after the Loading pulse motor was turned on following the operation of the Cutter motor and the cut master material is removed.

MASTER CUT ERROR
REMOVE DRUM (PRINT
CYLINDER) AND
CHECK MASTER

(C 23)

- Master Cut Malfunction -

Displayed to interrupt the machine operation in master-making and confidential process:

1) If master is detected by the Master positioning sensor at Drum A position after the cutting operation and besides it is not detected by the Master positioning sensor at the next Drum A position detection after the second cutting operation.

REMOVE
CUT MASTER STRIP

C 24

- A Cut Piece of Master Remains inside the Machine -

Displayed:

1) If the Master positioning sensor detects master material (the reflected light) just after the master cut operation is completed.

DISPOSAL ERROR
REMOVE DRUM (PRINT
CYLINDER) AND
DISCARD MASTER

(C 25)

- Master Removal Error -

Displayed after the Image scanning and Master making operations are completed or in the confidential operation:

1) If the Master removal sensor does not detect a removed master while the Drum rotates from C-1 to A position, during master removal operation.
2) If the light path of the Master removal sensor is still blocked by a removed master when the Vertical transport motor stops.

REMOVE
JAMMED MASTER
IN DISPOSAL UNIT

(C 26)

- Removed Master Jammed at the entrance of Master disposal box -

Displayed:

1) If the light path of the Master removal sensor is blocked at the start of master-making operation.

Note: The "C" messages in parentheses, e.g. (C 27), are displayed only when the * key is pressed on the Operation panel.

NO MASTER ON DRUM
(PRINT CYLINDER)
PRESS ALL RESET KEY AND
MAKE A NEW MASTER

(C 27)

No Master on Drum

Displayed to interrupt the machine operation:

1) If the Master sensor does not detect master on the drum at the Drum A position when the printing starts.

PAPER JAM
CHECK PAPER FEED
AREA

(C 31)

Paper Jam in the Second Paper Feed Area

Displayed to interrupt the machine operation:

1) If the Paper sensor malfunctions.
2) If the Paper sensor detects paper when the Pressure detection sensor detects the Pressure disc.
3) If at the Drum A position, the Paper receiving sensor 1 does not detect paper and at the next Drum A position, the Paper sensor detects the paper.

PAPER JAM UNDER
DRUM
PULL OUT DRUM

PAPER JAM
REMOVE PAPER
UNDER PRINT CYLINDER

(C 32)

Paper Jam around Paper Receiving Sensor 1

Displayed to interrupt the machine operation:

1) If the Paper receiving sensor 1 detects paper when the Pressure detection sensor detects the Pressure disc.
2) If the Paper receiving sensor 2 detects paper when the Paper receiving sensor 1 detects the next sheet of paper.

PAPER MISFEED
CHECK PAPER FEED
AREA AND PRESS
ALL RESET KEY

(C 33)

Paper Jam in the First Paper Feed Area

Displayed to interrupt the machine operation:

1) If the Paper sensor has not detected paper while the Position A sensor detects the A position three times.

PAPER JAM ON
DRUM (PRINT CYLINDER)
REMOVE PAPER

(C 34)

Paper Jam under the Drum

Displayed to interrupt the machine operation:

1) If the Paper receive sensor 1 does not detect paper at the Drum A position and the Paper sensor does not detect the paper at the next Drum A position.

ORIGINAL MISFEED
OPEN ADF COVER
AND RESET
ORIGINAL

(C 36)

Original Misfeed

Displayed to interrupt the machine operation:

1) If the actuator of the Registration sensor is not opened within **1.35 seconds** after the Original pickup motor was turned on.

ORIGINAL JAM
RESET ORIGINAL /1

(C 37)

Original Jam at Entrance

Displayed to interrupt the machine operation:

1) If the Original IN sensor has not detected an original within **630 pulses** after the Read pulse motor was turned on.

ADVICE DISPLAYS <GR>

Note: The "C" messages in parentheses, e.g. (C 38), are displayed only when the * key is pressed on the Operation panel.

ORIGINAL JAM
REMOVE ORIGINAL /2

(C 38)

Original Jam or Oversize

Displayed after the master has been loaded onto the Drum:

1) If the light path of the Original IN sensor is blocked for **14,173 pulses** (FB type **= 14,803**) after the Read pulse motor is turned on.

ORIGINAL JAM
RESET ORIGINAL /3

(C 39)

Original Jam at the Exit

Displayed after the master has been loaded onto the Drum:

1) If the Original OUT sensor has been blocked for **1,890 pulses** after the Read pulse motor was turned on.

REPLACE
INK CARTRIDGE

(C 41)

- Replace Ink Cartridge -

Displayed to interrupt the machine operation:

1) If the Ink sensor does not detect ink in the Squeegee unit within **30 seconds** after the Inking motor was started.

REPLACE
MASTER ROLL

(C 42)

- Replace Master Roll -

Displayed to interrupt the machine operation:

1) If the black tape attached at the end of the Master roll has been detected by the Master end sensor during master making or confidential operation.

EMPTY
DISPOSAL BOX

(C 43)

- Empty Disposal Box -

Displayed after the machine operation is finished:

1) If the disposed master is detected 40 times (50 for A4-drum models) by the Master removal sensor after the Disposal box was emptied.

ADD PAPER

(C 44)

- Add Paper -

Displayed to interrupt the machine operation:

1) If the light path of the Paper detection sensor is open.

T50
CALL SERVICE

E 50

- Connect "Copy/Master" Counter -

Displayed to interrupt or prevent machine operation:

1) If the connector of the copy and master counter comes loose or if the counter is removed.

INSERT CARD
IN KEY/CARD
COUNTER

(C 51)

- Insert Card into Key/Card Counter -

Displayed to prevent the machine operation:

1) If an operator card is not set in the Key/Card counter.

SET DRUM
IN PLACE

INSTALL
PRINT CYLINDER

(C 52)

- Set Drum in Place -

Displayed to prevent the machine operation:

1) If the actuator of the Drum set switch is not depressed.

Note: The "C" messages in parentheses, e.g. (C 53), are displayed only when the * key is pressed on the Operation panel.

INSTALL INK CARTRIDGE

(C 53)

- Set Ink Cartridge in Place -

Displayed to prevent the machine operation:

1) If the actuator of the Ink bottle switch is not depressed.

SET LEAD EDGE OF MASTER UNDER GREEN FILM

(C 54)

- Set Leading Edge of Master Under Green Films -

Displayed to prevent the machine operation:

1) If the Master detection sensor does not detect master material (the reflected light).

CLOSE FRONT COVER

(C 55)

- Close Front Cover -

Displayed to prevent the machine operation:

1) If the metal plate is not attached to the Front cover set sensor.

CLOSE SCANNER TABLE

(C 56)

- Close Scanner Table (or Upper Cover) -

Displayed to prevent the machine operation:

1) If the safety switch is not pressed by the Scanner table (or Upper cover).

SET (INSTALL) MASTER DISPOSAL BOX IN PLACE

(C 57)

- Set Master Disposal Box in Place -

Displayed to prevent the machine operation:

1) If the actuator of the Disposal box set switch is not depressed.

CLOSE MASTER LOADING UNIT

(C 58)

- Close Master Loading Unit -

Displayed to prevent the machine operation:

1) If the actuator of the Master loading unit switch is not depressed.

CLOSE ADF COVER

(C 59)

- Close ADF Unit -

Displayed to prevent the machine operation:

1) If the actuator of the ADF unit set switch is not depressed.

CHECK PAPER FEED AREA

C 60

- Paper Feed Tray Emergency Stop -

Displayed to interrupt the machine operation:

1) If the safety switch over or under the Paper feed tray is activated.

WRONG-SIZE DRUM
(PRINT CYLINDER)
INSTALLED

C 61

- Drum Size Error -
Displayed to prevent the machine operation:
1) If a wrong size drum is set in the machine.

WRONG-TYPE DRUM
(PRINT CYLINDER)
INSTALLED

C 62

- Drum Brand Error -
Displayed to prevent the machine operation:
1) If a wrong brand drum is set in the machine.

WRONG-TYPE
INK CARTRIDGE
INSTALLED

C 63

- Ink Cartridge Brand Error -
Displayed to prevent the machine operation:
1) If a wrong type of ink cartridge is set in the machine.

T68
CALL SERVICE

E 68

- "SF3000" Bulk Sheet Feeder Power Malfunction -
Displayed to interrupt the machine operation:
1) If the Bulk sheet feeder encounters power failure.

CLOSE BULK (SHEET)
FEEDER COVER AND
PRESS ALL RESET
KEY

C 69

- "SF3000" Bulk Sheet Feeder Error -
Displayed to interrupt the machine operation:
1) If the Bulk sheet feeder malfunctions.

PAPER JAM IN
SORTER
CHECK SORTER

C 71

- Sorter Error - Paper jammed in Sorter -
Displayed to interrupt the machine operation:
1) If paper has jammed in the sorter.

CLOSE SORTER'S
COVER

C 72

- Sorter Error - Sorter door (or cover) is open -
Displayed to prevent the machine operation:
1) If the door (or cover) of the sorter is open.

PAPER REMAINING
IN SORTER
REMOVE PAPER

C 73

- Sorter Error - Paper remains in Sorter -
Displayed to prevent the machine operation:
1) If the sorted sheets remain in the sort bins.

SORTER BIN FULL
REMOVE PAPER

C 74

- Sorter Error - Sorter bins are full -

Displayed to interrupt the machine operation:

1) If the sort bins are full of sorted sheets.

WRONG PAPER SIZE
SELECTION
CHANGE SELECTION

C 75

- Sorter Error - Wrong paper size is selected -

Displayed to prevent the machine operation:

1) If the paper size selection on the sorter does not match with the size of the paper loaded on the Paper feed tray.

THIS SIZE OF
PAPER IS
NOT ACCEPTABLE
FOR SORTER

C 76

- Sorter Error - Unavailable paper size -

Displayed to prevent the machine operation:

1) If the size of the paper loaded on the Paper feed tray is out of the range of paper size which can be used in the sorter.

T78
CALL SERVICE

E 78

- Machine Model Selection Error -

Displayed to interrupt the machine operation:
The SW2 (HEX SW) selection on the System PCB is set to "Not Used" position.